

100

Fig. 1

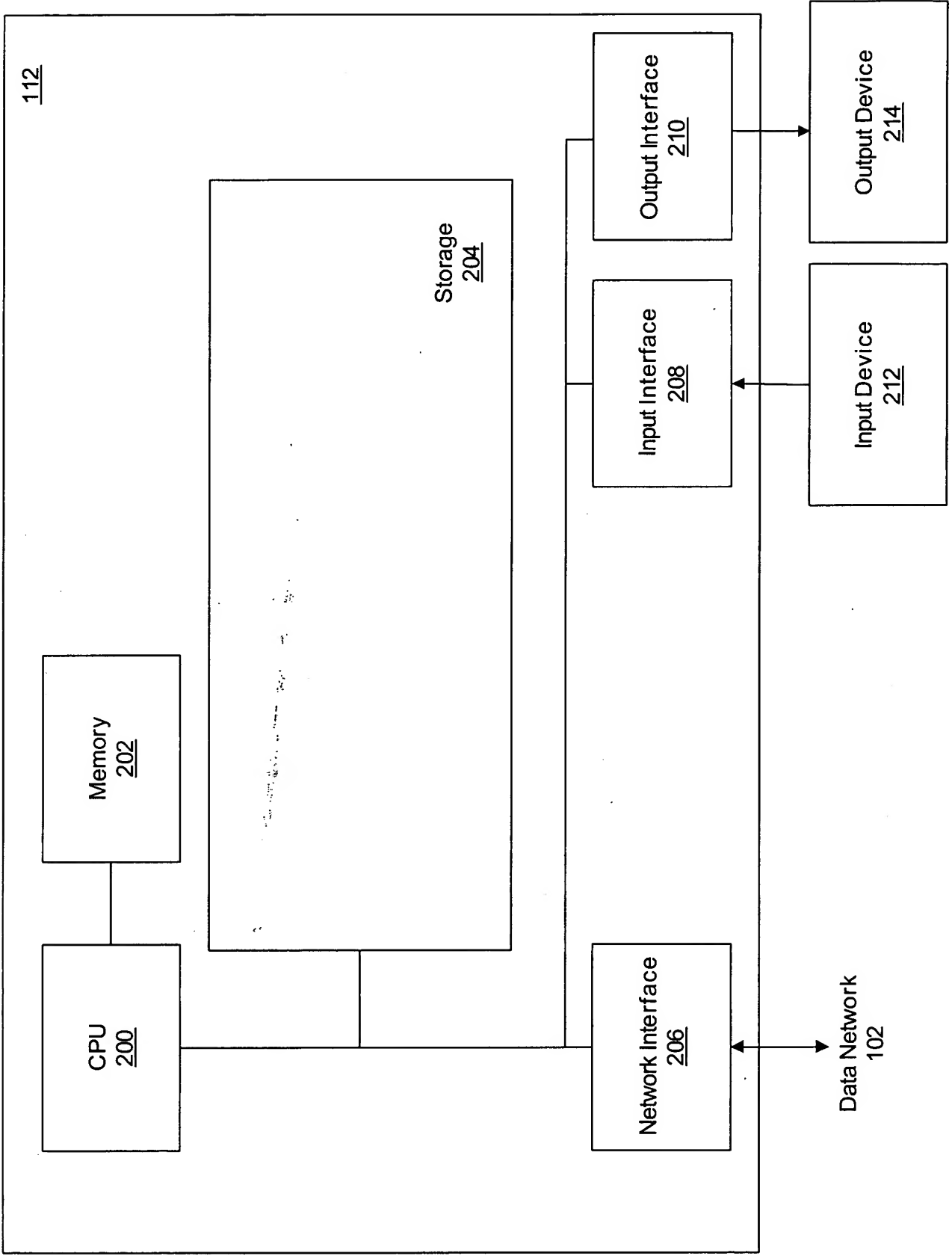


Fig. 2

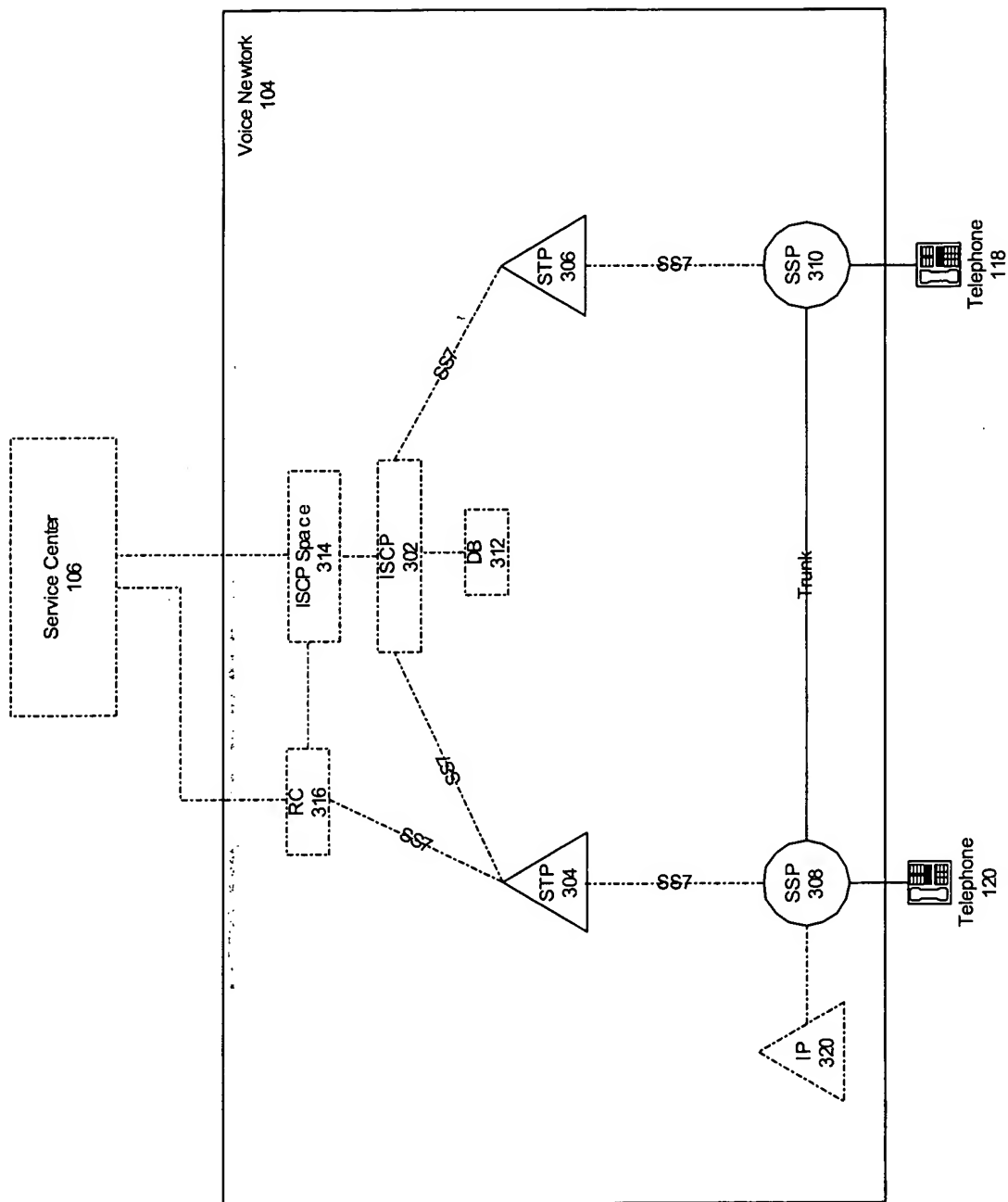


Fig. 3

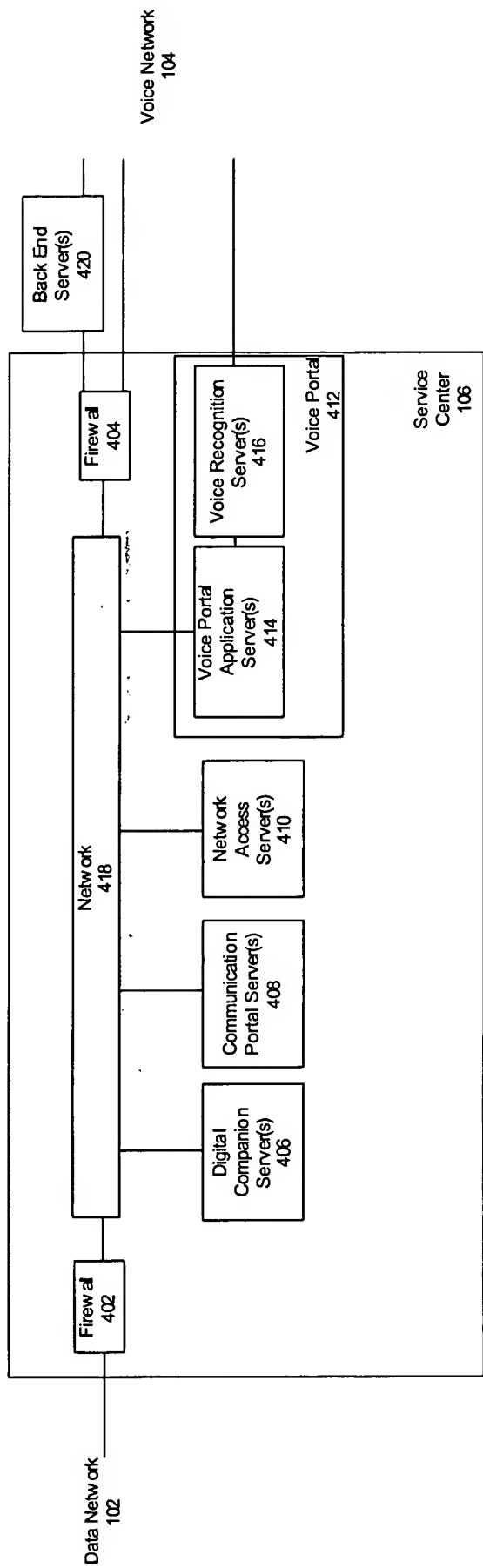


Fig. 4

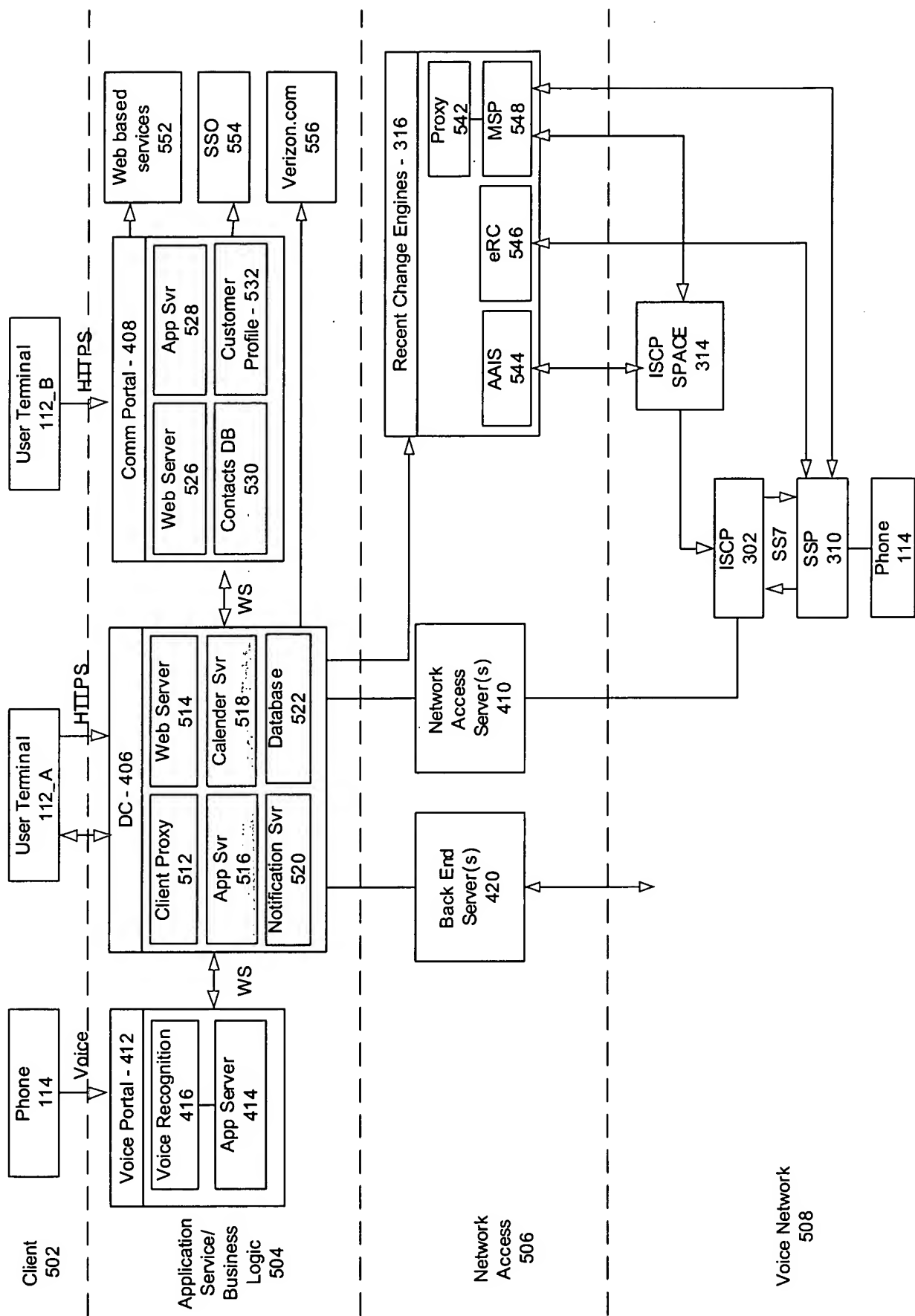
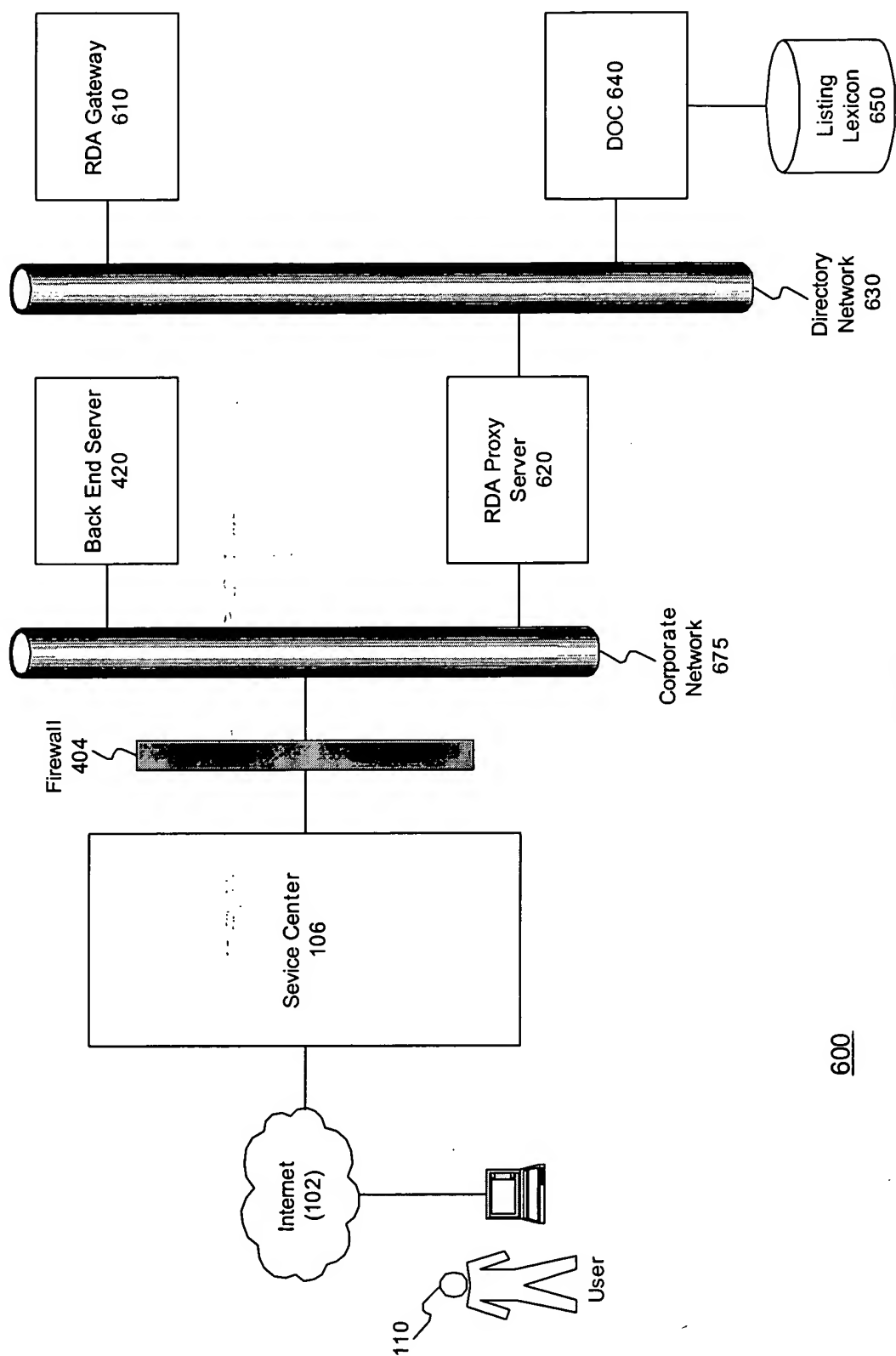


Fig. 5



600

Fig. 6

Fig. 7

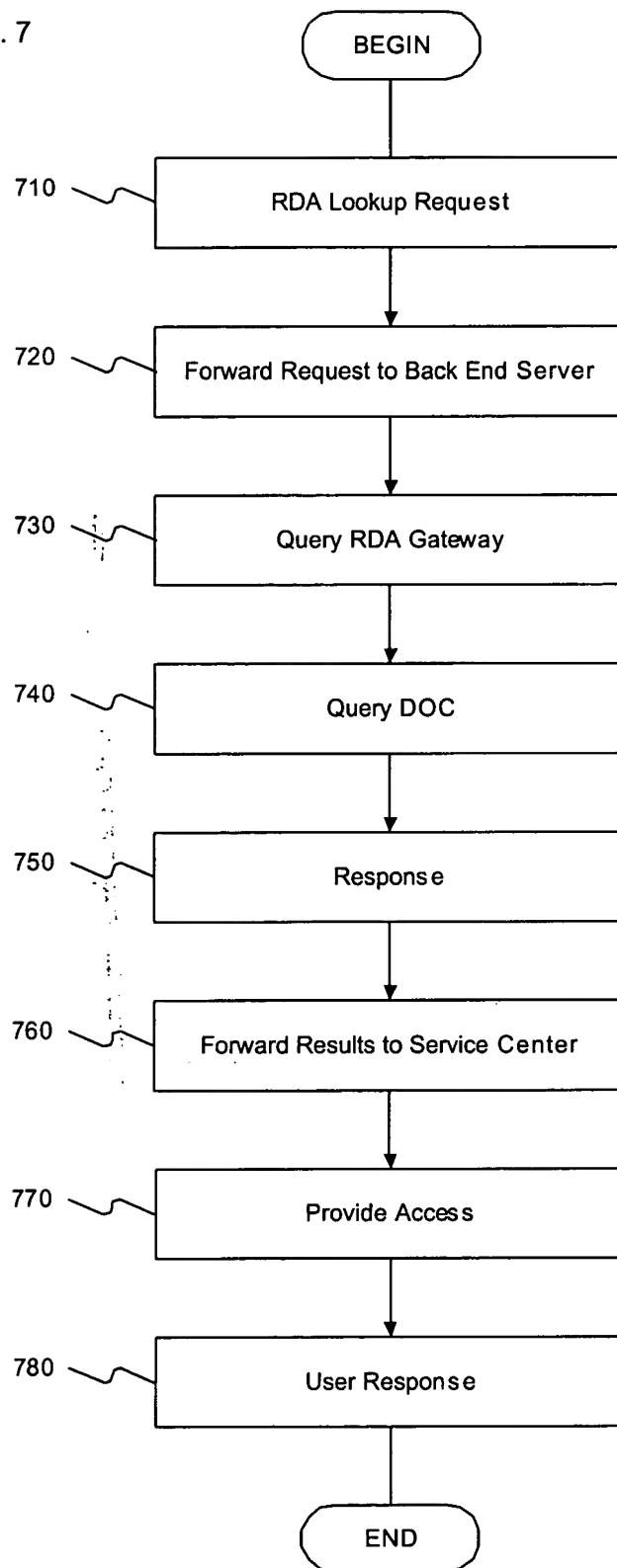


Table 1

Response	Condition
Single Listing	One matching listing retrieved from the listing database.
Multiple Listings	Two or more matching listings retrieved from the listing database.
Non Published Listing	The telephone customer has indicated that their information is not to be released.
No Listing	No listings matched the requested telephone number.
Invalid Phone Number	The phone number is in a wrong format (too few/too many digits).
Service Not Available	The server reports that the downstream RDA service is not available.
Database Error	The listings database suffered an internal error while processing the query.
Query Timeout	The response from the listings database did not arrive within the specified timeout period.

Fig. 8

Response DTD

```

<!ELEMENT response (listing*)>
<!ATTRIBUTE response
    code #REQUIRED
    time #REQUIRED
    listingCount #IMPLIED>
<!ELEMENT listing (billingType, nonPub, phone?, name?, address?, city?, state?, zip?)>
<!ELEMENT billingType (#PCDATA)>
<!ELEMENT nonPub (#PCDATA)>
<!ELEMENT phone (#PCDATA)>
<!ELEMENT name (#PCDATA)>
<!ELEMENT address (#PCDATA)>
<!ELEMENT city (#PCDATA)>
<!ELEMENT state (#PCDATA)>
<!ELEMENT zip (#PCDATA)>

```

Single Listing

```

<?xml version="1.0" encoding="utf8"?>
<response code="Listing Available" time="9/27/2002 10:36:30 AM" listingCount=1>
  <listing>
    <billingType>local</billingType>
    <nonPub>FALSE</nonPub>
    <phone>718 544?1713</phone>
    <name>Gu Joseph</name>
    <address> 112?20 72 Dr</address>
    <city>FOREST HILLS </City>
    <state>NY</state>
    <zip> 11375</zip>
  </listing>
</response>

```

Multiple Listings

```

<?xml version="1.0" encoding="utf8"?>
<response code="Listing Available" time="9/27/2002 10:35:45 AM" listingCount=2>
  <listing>
    <billingType>local</billingType>
    <nonPub>FALSE</nonPub>
    <phone>914 221?7764</phone>
    <name>Jones Craig</name>
    <address>12 Hickory Kingdom Rd</address>
    <city>BEDFORD (W) </city>
    <state>NY</state>
    <zip> 10506</zip>
  </listing>
  <listing>
    <billingType>local</billingType>
    <nonPub>FALSE</nonPub>
    <phone>914 221?7764</phone>
    <name>Smith Suzanne</name>
    <address>12 Hickory Kingdom Rd</address>
    <city>BEDFORD (W) </city>
    <state>NY</state>
    <zip> 10506</zip>
  </listing>
</response>

```

Fig. 9A

Non Published Listing

```
<?xml version="1.0" encoding="utf?8"?>
<response code="Listing Available" time="9/27/2002 10:38:38 AM" listingCount=1>
  <listing>
    <billingType>national</ billingType >
    <nonPub>TRUE</nonPub>
  </listing>
</response>
```

No Listing

```
<?xml version="1.0" encoding="utf?8"?>
<response code="No Listings" time="9/27/2002 10:33:28 AM"/>
```

Invalid Phone Number

```
<?xml version="1.0" encoding="utf?8"?>
<response code="Phone Number Invalid" time="9/27/2002 10:39:37 AM"/>
```

Service Not Available

```
<?xml version="1.0" encoding="utf?8" ?>
<response code="Service Not Available" time="9/27/2002 11:10:32 AM"/>
```

Database Error

```
<?xml version="1.0" encoding="utf?8"?>
<response code="Db Error" time=" 9/27/2002 11:10:32 AM"/>
```

Query Timeout

```
<?xml version="1.0" encoding="utf?8"?>
<response code="Query Timeout" time="9/27/2002 11:10:32 AM"/>
```

Fig. 9B